HOW TO RECALIBRATE ELKA SYNTHEX' OSCILLATORS.

The board you have to look at is no 5840, which is at the bottom of the 4-board-group on the left side.

number codes that cannot change as time passes by, so the tuning is stable and reliable. Since the voice - oscillators must be frequency-controlled by means of the LFO and the link; they can be imagined as 4 electronic diapason that can be modulated by the LFO and by the bend. We can refer to these 4 generators as: Gen A, Gen B, Gen C, Gen D. pitch bend, 4 reference frequency generators are used to which the voice-oscillators The 16 oscillators of Synthex' voices are digital, their tuning is controlled only by SOUND GENERATOR (OSCILLATOR) CALIBRATION.

In SPLIT and DOUBLE mode the assignation is as follows:

4 voices 4 voices 4 voices 4 voices upper upper lower lower Gen B: 0SC-2 Gen A: 0SC-1 Gen C: 0SC-1 Gen D: 0SC-2

In NORMAL mode the assignation ia as follows:

(8 voices) (8 voices upper upper Gen A: 0SC-1 Gen B: 0SC-2

13 1E 1 T8 19 -- 5840 110 board

17

T4 T3

0SC-10 Gen A Gen B OSC-2U **DSC-11** Gen C Gen D OSC-2L

The generators calibration is divided into 4 steps:

step-1: starting settings

step-3: calibration of Gen C: OSC-1L referring to Gen A: OSC-1U step-4: calibration of Gen D: OSC-2L referring to Gen A: OSC-1U step-2: calibration of Gen B: OSC-2 referring to Gen A: OSC-1

If for some of these steps you reach the limit of one trimmer, you can solve the problem by using the corresponding Gen A trimmers 1or 2, repeating of the three steps;

if the problem is on T4, T6, T8 then you can use the trimmer T1 which is situated on the board n° 5801 which is on the small panel close to the joystick.

The trimmer T2 sets the centering of MASTER TUNE. The trimmer T3 sets the end value tune of BEND + The trimmer T5 sets the end value tune of BEND -The trimmer T1 sets the centering of DETUNE.

STEP-1 STARTING SETTINGS

joystick panel:

upper/lower/both selector = BOTH sliders BEND to osc = 10 all the other sliders = 0

panel settings:

DOUBLE = OFF SPLIT = OFF PANEL = ON TUNING

DETUNE = 0

MASTER TUNE = 0

OSC 2 SYNC = OFF

OCTAVE = 4" OSCILLATOR 1

WAVEFORM = ramp (sawtooth) TRANSPOSE = 0 VOLUME = 10

> N OSCILLATOR

WAVEFORM = ramp VOLUME = 10 TRANSPOSE = 0 OCTAVE = 4

FILTER

Filter Modes = LP RESONANCE = 0 KEYBOARD = 0 ENVELOPE = 0

FREOUENCY = 10

CHORUS

GLIDE / PORTAMENTO

all OFF

PFF

LFO ROUTING

all OFF

NOISE GENERATOR

all OFF

STEP - 2: CALIBRATION OF GEN B: OSC-2 REFERRING TO GEN A: OSC-1

1) Enable HOLD

2) Press the C4 key (you could use any other key, but it's necessary that the frequency

Bring and hold the joystick to the maximum BEND + value is high in order to better hear to the beats)

4) Reduce the beats as much as you can by means of trimmer T3

Bring and hold the joystick to the maximum BEND - valueReduce the beats as much as possible by means of trimmer T4

7) Repeat from instruction 3) to instruction 6) till the beat is the least through all the joystick range

8) Disable HOLD

STEP - 3: CALIBRATION OF GEN C: OSC-1L REFERRING TO GEN A: OSC-1U

1) Set OSC 2 VOLUME = 0

2) Enable HOLD

3) Enable DOUBLE

4) Enable LOWER

Select PANEL (make sure that HOLD is enabled)

6) Press the C4 key7) Bring and hold the joystick to the maximum BEND + value

8) Reduce the beats as much as you can by means of trimmer T5

9) Bring and hold the joystick to the maximum BEND - value

10) Reduce the beats as much as possible by means of trimmer T6

11) Repeat from instruction 7) to instruction 10) until the beat is the least through all the joystick range

STEP - 4: CALIBRATION OF GEN D; OSC-2L REFERRING TO GEN A; OSC-1U

LOWER is enabled since STEP-2

1) Set the OSC-1 VOLUME to 0

2) Set the OSC-2 VOLUME to 10

Bring and hold the joystick to the maximum BEND + value

4) Reduce the beats as much as you can by means of trimmer T5

5) Bring and hold the joystick to the maximum BEND - value

6) Reduce the beats as much as possible by means of trimmer T67) Repeat from instruction 3) to instruction 6) until the beat is the least through all the

(Now see the BMP file we're enclosing)

joystick range